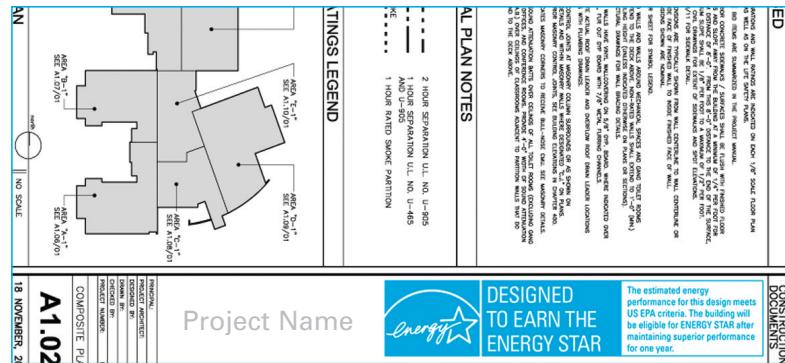


GET NOTICED

ACTIVE A&E FIRMS

Architecture firms submitting projects that receive the "Designed to Earn ENERGY STAR" graphic will be showcased on our Web site.



Sample of ENERGY STAR graphic on project drawings.

ENERGY STAR RESOURCES

Visit www.energystar.gov/newbuildingdesign to learn about these resources:

BENEFITS AND RECOGNITION

Find out how to join the ENERGY STAR partnership, apply for annual awards, and receive recognition from EPA.

BUILDING DESIGN GUIDANCE

Use New Building Design Guidance and checklists to include energy goals and strategies in project programming, budgeting, and scheduling phases.

NEWS & RESOURCES

Read case studies about delivering superior energy efficiency in design. Link to sustainability and energy related resources.

CLASSES & CONFERENCES

Earn AIA/CES credits for attending in-person or Internet presentations on Target Finder.

CONTACT ENERGY STAR

Hotline: 1.888.STAR.YES (1.888.782.7937)

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US EPA – ENERGY STAR
New Building Design
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www.energystar.gov



ENERGY STAR

ENERGY STAR® is the national symbol for protecting the environment through energy efficiency.

DESIGN TO EARN THE ENERGY STAR

Architecture firms can now distinguish building designs that are among the most energy efficient in the country as "Designed to Earn the ENERGY STAR." Building design projects can receive an energy performance rating from EPA's easy-to-use tool Target Finder. Setting an energy goal, rating energy performance, and being recognized for a design project that's well done can all be achieved through ENERGY STAR.

SETTING PERFORMANCE TARGETS

Do you know, early in the design process, what the energy use target should be for a high performance building?

Now there's an easy way to get an energy use target that's tailored to your specific design project. Target Finder provides a realistic energy consumption target for the building design, which is derived from existing commercial building data. It lets you choose a target rating and provides the associated energy use and costs, as well as an energy use target for the top 10% of U.S. buildings.

Keith Giampertone, AIA-Brown, Jurkowski Architecture Collaborative says, "It [Target Finder] gives quick feedback on energy use targets I have wanted some 'rules of thumb' or a 'framework' to help the entire design team set an energy use goal early in the design process and this is exactly what I need."

RATING DESIGN PERFORMANCE

When clients ask for an ENERGY STAR or "high performance building," do you know if the design achieves their goals?

It has been difficult to know if the estimated energy use for a building design is comparable to similar high performing buildings. Building designs that meet or exceed energy codes as a measure of high performance may not include a complete energy use profile. Nor do you know if the intended energy use ranks among the best in the nation. Now with Target Finder you can receive a 1-100 rating for the design, once the total annual energy use has been calculated (Figure 1). This is a critical step in knowing whether your design ranks among the best for energy efficiency.

ACHIEVING THE BEST

Are your buildings designed to be ENERGY STAR?

If the design's rating is 75 or higher, the Architect of Record can display the "Designed to Earn the ENERGY STAR" graphic on building plans and documents. EPA's ENERGY STAR recognizes both architects and building owners for their commitment to delivering high performance buildings that protect the environment.

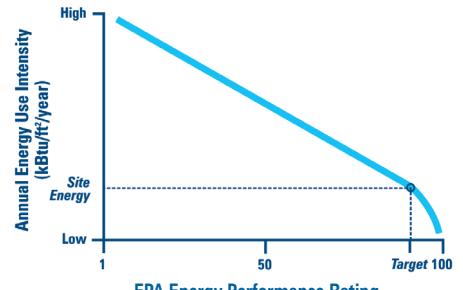


Figure 1. EPA's energy performance rating uses a 1-100 scale. Lower energy use yields a higher performance rating. A 75 or higher design rating achieves ENERGY STAR.

SET GOALS AND RATE YOUR DESIGN

Target Finder, EPA's rating tool, can be used throughout the design process to help translate design intent into superior operational performance. The rating applies the same performance metric from pre-design through schematic design development and during building operation to determine how the energy use ranks against similar buildings across the nation.

To use Target Finder, all required fields must be completed.

Pre-Design: Set Energy Goal

1. FACILITY INFORMATION

Use zip code of project location (required to calculate energy use target).

2. FACILITY CHARACTERISTICS

Space types: Office, K-12 School, Hospital, Hotel, Medical Office, Residence Hall, Supermarket, Warehouse.

3. TARGET RATING

Select a "Target Rating" from 50 to 100, and the tool provides the estimated total annual energy use and cost. A 75 or higher rating is ENERGY STAR.

Select "View Results" and see next page.

Schematic Design Development:

As the design develops, enter results from energy analysis calculations to get the Design Rating.

4. DESIGN ENERGY

Enter energy data: source, units, annual usage, and rate.

Select "View Results" and see next page.

Note: An incomplete energy use profile could result in a high but inaccurate rating. Total annual estimated energy use must include plug, process, and all non-regulated loads; equipment loads specified on drawings; and all fuel sources.*

The screenshot shows the Target Finder interface. It includes sections for Facility Information (Zip Code: 27517, Facility Name: Office Design, City: Chapel Hill, State: North Carolina), Facility Characteristics (Space Types: Office (General)), Target Rating (selected: 80), and Design Energy (Energy Source: Electricity, Units: kWh, Annual Energy Use: 1087656, Energy Rate: \$0.07/kWh; Energy Source: Natural Gas, Units: therms, Annual Energy Use: 15909, Energy Rate: \$0.80/therms). Buttons at the bottom are 'View Results' and 'Clear Form'.

*The EPA energy performance rating used in Target Finder is derived from fuel consumption data of existing commercial buildings, which includes the total energy use associated with the building. Therefore, design energy use must include all fuel sources and **total** estimated energy use for the building design. Gaps in energy analysis must be addressed in order for the rating to be a useful indicator of future performance.

GET RESULTS

Target Finder displays the annual energy use corresponding to the target you selected. The target serves as a reference for comparing energy strategies and deciding the best technologies and practices for achieving your energy performance goal.

The screenshot shows the Target Energy Performance Results table and Facility Information table. The results table includes columns for Energy, Design, Target, and Top 10% (Rating: 60, 80, 90; Site Energy Use Intensity: 106.0, 84.6, 67.3; Estimated Total Annual Energy: 5,301,982.3, 4,229,473.2, 3,364,258.8; Total Annual Energy Cost (\$): \$88,863, \$70,887, \$56,386). The facility information table shows Office Design in Chapel Hill, NC 27517, United States, with a Gross Floor Area of 50,000 Sq. Ft. and a Total Gross Floor Area of 50,000. The source is DOE-EIA.

Target Finder is a fast, easy-to-use Internet tool . . . with powerful results.
Visit www.energystar.gov and type "Target Finder" in Search.

RESULTS

In the example results table (left), a 50,000 sq. ft. building design with a 60 rating is estimated to cost an additional \$17,976 annually than one with an 80 rating. The anticipated energy cost savings could be used to invest in more aggressive energy efficiency measures.

STATEMENT OF ENERGY DESIGN INTENT (SEDI)

Print the Statement to see your design results and potential greenhouse gas emissions associated with energy use. Include it in contract documents to articulate your energy goal and help ensure that intended performance is achieved in the completed building.

HELP & EDIT Buttons

The HELP button includes space type parameters, metrics conversion table, rules of thumb, etc.

The EDIT button is located on each table for making changes to your entries. (Note: Using the "Back" button on your browser may delete your data.)

The data used for the energy performance rating are derived from the U.S. Department of Energy's Commercial Building Energy Consumption Survey. The required data inputs for the rating were found to be the primary drivers of energy use—building size, geographic location (climate), occupancy, and plug load.